

## Bourbon County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors

6/25/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 19 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Bourbon County economy.<sup>1</sup>

These 19 sectors have a total direct output of approximately **\$118.3 million** and support **1023 jobs** in Bourbon County. Running the model for all 19 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Bourbon County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
Direct Effect	1022.6	10.71%	\$38,676,543	6.32%	\$118,342,424
Indirect Effect	117.1	1.23%	\$8,962,183	1.46%	\$18,463,296
Induced Effect	54.0	0.57%	\$3,322,336	0.54%	\$6,274,246
<b>Total Effect</b>	<b>1193.7</b>	<b>12.50%</b>	<b>\$50,961,062</b>	<b>8.33%</b>	<b>\$143,079,966</b>

As shown in the above table, agriculture, food, and food processing sectors support **1,194 jobs**, or **12.50%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 19 agriculture, food, and food processing sectors is approximately **\$50.9 million**, or **8.33% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **678 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Bourbon County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	678.1	\$56,971,578
All other crop farming	122.5	\$7,052,464
Food product machinery manufacturing	62.7	\$17,956,792
Wholesale trade	39.5	\$7,305,529
Support activities for agriculture and forestry	33.5	\$608,990
Landscape and horticultural services	26.6	\$1,006,376
Dairy cattle and milk production	22.0	\$9,187,396
Grain farming	18.3	\$4,906,785
Truck transportation	17.6	\$2,410,062
Veterinary services	13.0	\$1,432,980

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$56.9 million** to the Bourbon County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	678.1	\$56,971,578
Food product machinery manufacturing	62.7	\$17,956,792
Oilseed farming	12.8	\$9,927,221
Dairy cattle and milk production	22.0	\$9,187,396
Wholesale trade	39.5	\$7,305,529
All other crop farming	122.5	\$7,052,464
Animal, except poultry, slaughtering	8.8	\$5,984,652
Grain farming	18.3	\$4,906,785
Truck transportation	17.6	\$2,410,062
Veterinary services	13.0	\$1,432,980

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Bourbon County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	12.8	\$9,927,221.30
Grain farming	18.3	\$4,906,785.01
Vegetable and melon farming	0.2	\$49,087.70
Fruit farming	1.1	\$107,756.13
Tree nut farming	0.4	\$56,259.22
Greenhouse, nursery, and floriculture production	0.7	\$117,765.77
All other crop farming	122.5	\$7,052,464.49
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	678.1	\$56,971,576.69
Dairy cattle and milk production	22.0	\$9,187,396.05
Poultry and egg production	1.2	\$964,652.90
Animal production, except cattle and poultry and eggs	10.2	\$950,989.60
Commercial hunting and trapping	1.5	\$27,845.90
Support activities for agriculture and forestry	33.5	\$608,990.01
Animal, except poultry, slaughtering	8.8	\$5,984,652.52
Bread and bakery product, except frozen, manufacturing	8.6	\$952,399.67
Frozen cakes and other pastries manufacturing	0.5	\$80,431.73
Food product machinery manufacturing	62.7	\$17,956,790.92
Landscape and horticultural services	26.6	\$1,006,375.78
Veterinary services	13.0	\$1,432,980.42

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Bourbon County, the retail sector was omitted.